What is claimed is:

1. A network switching system wherein stream data transferred on a serial bus are exchanged through a gateway between an outside line and an extension node, or between an extension node and the other extension node, wherein said extension node comprises:

control/memory unit for storing physical identifiers and telephone numbers of said gateway node and extension nodes and for controlling said network;

an asynchronous interface, for selecting said extension node and controlling a switching timing, connected with said control/memory unit;

a rate conversion unit for converting data rate of said stream data in said network into that in said outside line, or converting the other way around; and

an isochronous interface, for transmitting and receiving said stream data, connected with said rate conversion unit.

2. The network switching system according to Claim 1, wherein said extension node further comprises:

a microphone for inputting said stream data ;

a speaker for outputting said stream data; and

a codec, for encoding and decoding said stream data, connected with said microphone, said speaker and said rate conversion unit for encoding and decoding said stream data.

3. The network switching system according to Claim 1, wherein said extension node further comprises:

a stream data take-in unit, for storing said stream data, connected with said rate conversion unit; and

a stream data processing unit, for processing said stream data, connected with said stream data take-in unit.

4. The network switching system according to Claim 1, wherein said asynchronous interface and said isochronous interface are connected with a bus manager which controls said asynchronous interface, said isochronous interface, said control/memory unit, and said rate conversion unit.

5. A gateway which comprises a first switching unit for controlling extension nodes connected with a serial bus for isochronous transfer, and second switching unit for exchanging stream data between an outside line and said extension nodes, wherein:

said first switching unit comprises a bus manager connected with an aysnchronous interface and an isochronous interface; and

said second switching unit comprises a line manager connected with a codec and a control/memory unit,

wherein said line manager exchanges said stream data between said outside line and said extension node, according to a request from said bus manager, and said bus manager manages a call-in to said extension node and a call-out from said extension node.

6. An information terminal which comprises a telephone for transmitting and receiving telephone signal through a serial bus, a TV set for receiving TV signal through said serial bus, and a bus manager for controlling said serial bus, wherein said bus manager comprises two pairs of an aysnchronous interface and an isochronous interface for said telephone signal and said TV signal, respectively.

7. A gateway which comprises a telephone gate way and a TV gateway which are connected with a bus manager, wherein:

said telephone gateway transfers telephone signal from public switched telephone network to a serial bus, and transfers the other way around;

said TV gateway receives TV signal from TV line, and transfer said TV signal to said bus manager; and

said bus manager comprises two pairs of an asynchronous interface and a isochronous interface for transferring said telephone signal and said TV signal, respectively.

8. A call-in signal processing method for a network switching system using asynchronous and isochronous transfer modes, wherein stream data transferred on a serial bus are exchanged through a gateway between an outside line and an extension node, or between an extension node and the other extension node, which comprises the steps of:

selecting at said gateway which of an automatic transfer by number display, a global call-in, or a manual call-in on the basis of setup data;

calling one or more extension nodes;

securing one or more isochronous channels on the basis of responses from said extension nodes;

allowing said extension nodes to start talking;

sending simultaneously call status of a station of which call status is changed to all the extension node connected with said serial bus.

9. A call-out signal processing method for a network switching system using asynchronous and isochronous

transfer modes, wherein stream data transferred on a serial bus are exchanged through a gateway between an outside line and an extension node, or between an extension node and the other extension node, which comprises the steps of:

receiving at said gateway a call-out from said extension node ;

confirming at said gateway a call status of call object;

securing an isochronous channel for transmission;

sending said call status to all the extension nodes;

securing an isochronous channel for reception;

allowing said call object to start talking, when said call object has responded, while sending, to said extension node which carried out call-out, such a call status that indicates that said call object does not respond, when said call object has not responded;

releasing said isochronous channels for transmission and reception, when detecting an on-hook of said extension node which has made said call-out; and

sending said call status to all the extension nodes.

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